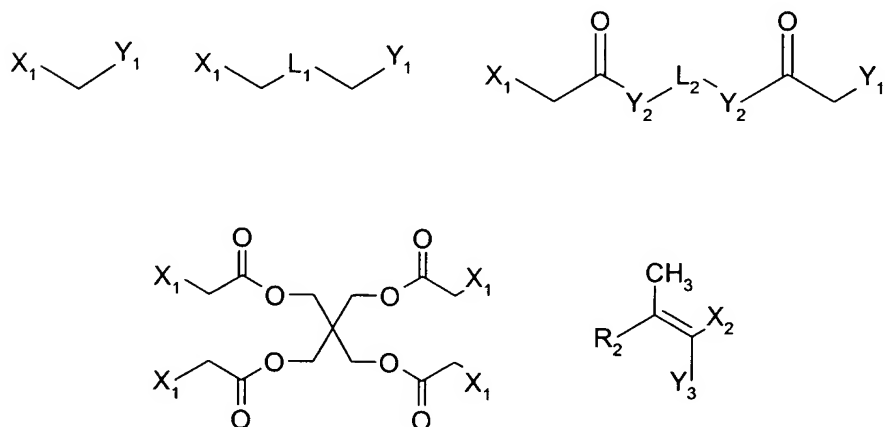


Claims

We claim:

1. A polyester composition comprising:
  - (a) a polyester; and
  - (b) at least one active methylene compound which is sufficiently acidic to react with acetaldehyde.
2. A polyester composition comprising
  - (a) a polyester; and
  - (b) at least one active methylene compound, wherein said active methylene compound has a pKa of less than about 25.
3. The polyester composition of claim 2, wherein said active methylene compound has a pKa of less than about 13.
4. A polyester composition comprising:
  - (a) a polyester; and
  - (b) at least one additive that is capable of reacting with acetaldehyde to form a new carbon-carbon bond, said additive being selected from the acyclic active methylene compounds represented by the following formulae:



Docket No. 71593

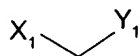
wherein  $X_1$  and  $Y_1$  each denote an electron withdrawing group and are independently selected from aryl, carbamoyl, cyano, heteroaryl, nitro, sulfamoyl,  $R_1$ -CO-,  $R_1$ O-CO-,  $R_1$ NHCO-,  $(R_1)_2$ N-CO-, HO- $L_2$ -NHCO-, (HO- $L_2$ ) $_2$ N-CO-,  $R_1$ -O $_2$ S-,  $R_1$ -NHO $_2$ S-, and  $(R_1)_2$ NO $_2$ S-, wherein  $R_1$  is selected  
5 from C $_1$ -C $_{22}$ -alkyl, substituted C $_1$ -C $_{22}$ -alkyl, C $_3$ -C $_8$ -cycloalkyl, substituted C $_3$ -C $_8$ -cycloalkyl, C $_3$ -C $_8$ -alkenyl, C $_3$ -C $_8$ -alkynyl, aryl, heteroaryl; wherein  $L_2$  is a divalent linking group selected from C $_1$ -C $_{22}$ -alkylene, C $_3$ -C $_8$ -cycloalkylene, C $_1$ -C $_6$ -alkylene-cyclohexylene-C $_1$ -C $_6$ -alkylene, C $_2$ -C $_4$ -alkylene-O-arylene-O-C $_2$ -C $_4$ -alkylene, arylene and -(CH $_2$ CH $_2$ - $L_3$ ) $_{1-3}$ -CH $_2$ CH $_2$ -, wherein  $L_3$  is  
10 selected from -O-, -S-, -SO $_2$ -, and -N( $R_1$ )-;

wherein  $Y_2$  is selected from -O-, -NH- and -N( $R_1$ )-;

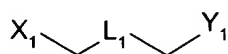
wherein  $X_2$  and  $Y_3$  are independently selected from cyano, C $_1$ -C $_6$ -alkylsulfonyl, arylsulfonyl and C $_1$ -C $_6$ -alkoxycarbonyl;  
15

wherein  $R_2$  is selected from aryl and heteroaryl.

20 5. The composition of claim 4, wherein the additive is a compound of the formula

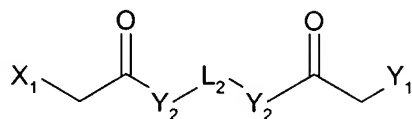


25 6. The composition of claim 4, wherein the additive is a compound of the formula



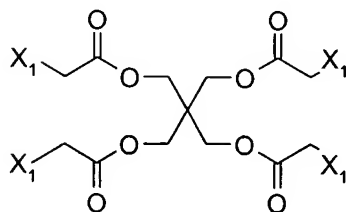
Docket No. 71593

7. The composition of claim 4, wherein the additive is a compound of the formula



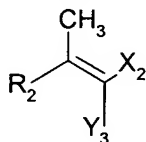
5

8. The composition of claim 4, wherein the additive is a compound of the formula



10

9. The composition of claim 4, wherein the additive is a compound of the formula



15

10. The composition of claim 4, wherein  $Y_2$  is  $-O-$ .

11. The composition of claim 4, wherein  $Y_2$  is  $-NH-$ .

20

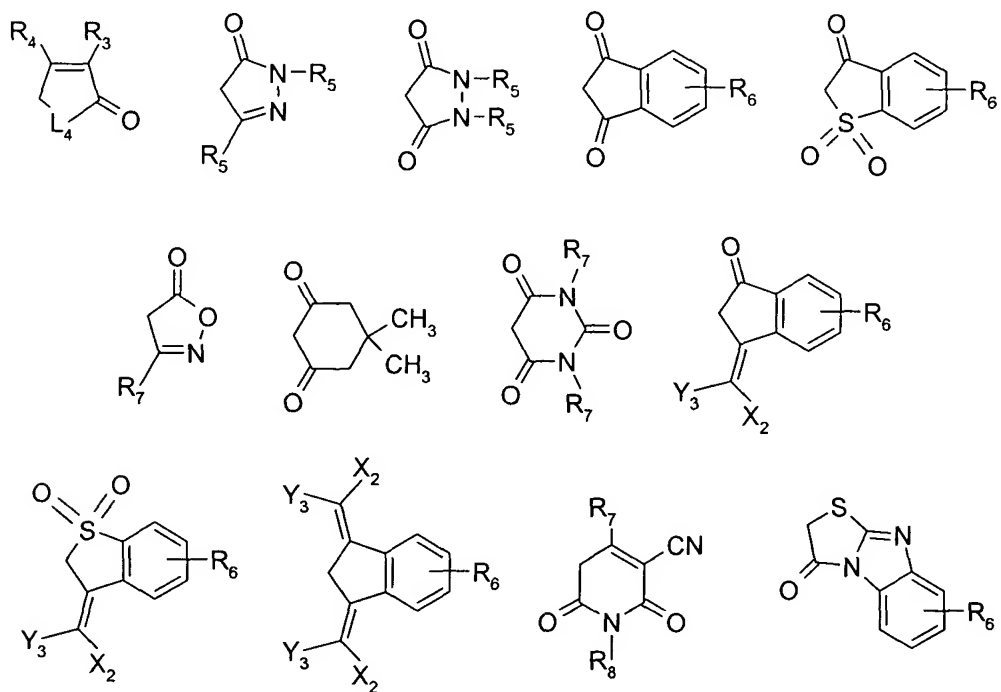
12. The composition of claim 4, wherein  $Y_2$  is  $-N(R_1)-$ .

13. A polyester composition comprising:

(a) a polyester; and

Docket No. 71593

(b) at least one additive that is capable of reacting with acetaldehyde to form a new carbon-carbon bond, said additive selected from the cyclic active methylene compounds represented by the following formulae:



5

wherein R<sub>3</sub> is selected from C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, cyano, heteroaryl;

wherein R<sub>4</sub> is selected from aryl and heteroaryl;

10

wherein R<sub>5</sub> is selected from hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, substituted C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl and aryl;

15

wherein R<sub>6</sub> is selected from hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, trifluoromethyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkanoyloxy, aroyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, carbamoyl, sulfamoyl, -NHCOR<sub>9</sub>, -NHSO<sub>2</sub>R<sub>9</sub>, -CONHR<sub>9</sub>, -CON(R<sub>9</sub>)<sub>2</sub>, -SO<sub>2</sub>NHR<sub>9</sub> and -SO<sub>2</sub>N(R<sub>9</sub>)<sub>2</sub>; wherein R<sub>9</sub>

Docket No. 71593

is selected from C<sub>1</sub>-C<sub>6</sub>-alkyl, substituted C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl and aryl;

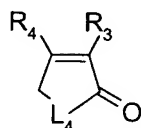
wherein R<sub>7</sub> is selected from hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, and aryl;

5

wherein R<sub>8</sub> is selected from hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, substituted C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>3</sub>-C<sub>8</sub>-alkenyl, C<sub>3</sub>-C<sub>8</sub>-alkynyl and aryl;

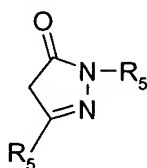
wherein L<sub>4</sub> is selected from -O-, -S- and -N(R<sub>10</sub>)-, wherein R<sub>10</sub> is selected  
10 from hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl and aryl.

14. The composition of claim 13, wherein the additive is a compound of the formula



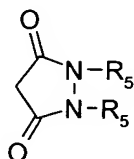
15

15. The composition of claim 13, wherein the additive is a compound of the formula



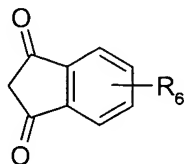
20

16. The composition of claim 13, wherein the additive is a compound of the formula

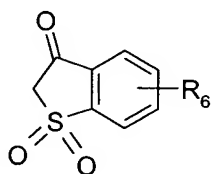


Docket No. 71593

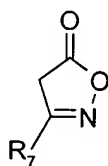
17. The composition of claim 13, wherein the additive is a compound of the formula



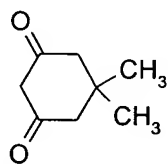
5 18. The composition of claim 13, wherein the additive is a compound of the formula



10 19. The composition of claim 13, wherein the additive is a compound of the formula



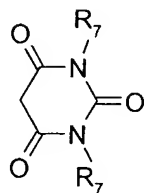
20. The composition of claim 13, wherein the additive is a compound of the formula



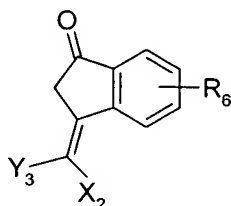
15

21. The composition of claim 13, wherein the additive is a compound of the formula

Docket No. 71593

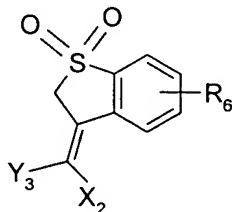


22. The composition of claim 13, wherein the additive is a compound of the formula



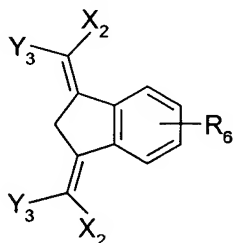
5

23. The composition of claim 13, wherein the additive is a compound of the formula



10

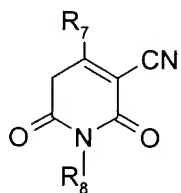
24. The composition of claim 13, wherein the additive is a compound of the formula



15

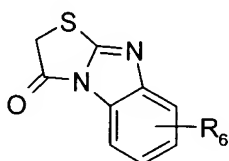
25. The composition of claim 13, wherein the additive is a compound of the formula

Docket No. 71593



26. The composition of claim 13, wherein the additive is a compound of the formula

5



27. The composition of claim 1, further comprising at least one compound known to catalyze the reaction between an acidic methylene and an aldehyde.

10

28. The composition of claim 27, wherein the compound is selected from the group consisting of hindered amine light stabilizers (HALS), amino acids, alkali metal salts of mono- and poly-carboxylic acids, tertiary amines, and secondary amines.

15

29. The composition of claim 1, further comprising about 1-99 weight percent of a post-consumer recycled material.

20

30. The composition of claim 1, further comprising about 0.1 to 10 weight percent of at least one colorant and/or ultraviolet light absorbing compound either admixed or copolymerized in the polyester.



Docket No. 71593

30. The composition of claim 1, further comprising an infrared absorbing compound selected from carbon black, black iron oxide, reduced antimony metal catalyst residues, and infrared absorbing compounds either admixed or copolymerized in the polyester.

5

31. The composition of claim 1, further comprising a non-sticking additive selected from lubricants, inorganic mineral composites, and talc.

32. The composition of claim 13, further comprising at least one compound known to catalyze the reaction between an acidic methylene and an aldehyde.

10

34. The composition of claim 32, wherein the compound is selected from the group consisting of hindered amine light stabilizers (HALS), amino acids, alkali metal salts of mono- and poly-carboxylic acids, tertiary amines, and secondary amines.

15

35. The composition of claim 13, further comprising about 1-99 weight percent of a post-consumer recycled material.

20

36. The composition of claim 13, further comprising about 0.1 to 10 weight percent of at least one colorant and/or ultraviolet light absorbing compound either admixed or copolymerized in the polyester.

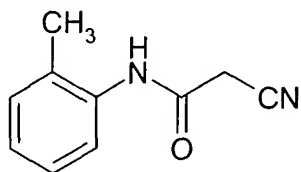
25

37. The composition of claim 13, further comprising an infrared absorbing compound selected from carbon black, black iron oxide, reduced antimony metal catalyst residues, and infrared absorbing compounds either admixed or copolymerized in the polyester.

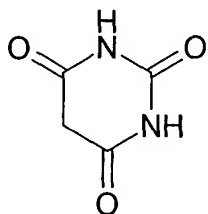
Docket No. 71593

38. The composition of claim 13, further comprising a non-sticking additive selected from lubricants, inorganic mineral composites, and talc.

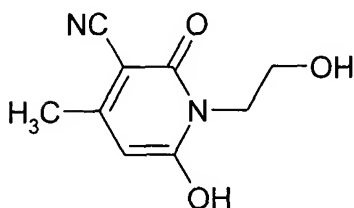
39. The composition of claim 13, wherein the additive is a compound of the formula



40. The composition of claim 13, wherein the additive is a compound of the formula



, or



41. A shaped or formed article comprised of the composition of claim 1.

42. A shaped or formed article comprised of the composition of claim 13.

Docket No. 71593

43. A method for reducing the amount of acetaldehyde in a polyester composition, which comprises melt-blending into said composition an active methylene compound capable of reacting with said acetaldehyde.

5